BOROUGH OF WHITEHAVEN

MINISTRY OF HEALTH
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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

1956

AND REPORT OF THE

CHIEF PUBLIC HEALTH INSPECTOR

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BOROUGH OF WHITEHAVEN

HEALTH AND HOUSING COMMITTEE, 1956-57.

Chairman ... ... Councillor J. WALSH.

Vice-Chairman ... ... Alderman W. STEPHENSON.

THE MAYOR (Councillor G. Q. McCartney).

Members: Aldermen J. BLAMIRE and W. E. KNIPE.

Councillors F. BAXTER, W. J. DENVIR,
G. HANLON and THOMPSON REED.

HEALTH DEPARTMENT STAFF

Medical Officer of Health:

J. W. MACKAY, M.A., M.B., Ch.B.
(*Temporary appointment to* 31/10/56).

J. N. DOBSON, M.B., Ch.B., D.P.H.
(*Appointed* 1/11/56).

Chief Public Health Inspector:

A. A. BELDON, C.R.S.I.

Additional Health Inspectors:

V. G. CATER, C.R.S.I. (*Resigned* 30/6/56).
J. TAYLOR, C.R.S.I.

Clerk: Miss I. Davidson.

Clerk-Typist: Miss G. Banks.

Health Department,
53, *Duke Street,*
Whitehaven.
September, 1957.

To His Worship the Mayor,
The Aldermen and Councillors
of the Borough of Whitehaven.

Mr. Mayor and Gentlemen,

The following report summarises the sanitary circumstances and vital statistics of the Borough. To some extent also it gives an indication of the Borough's health. Such information is gleaned in the main from a consideration of the statistics which accumulate annually and must, of necessity, be incomplete. Additional and important material is to be found in hospital records, and some of this appears in the annual reports of the Regional Hospital Board. Recourse to these, however, is of limited value if one is to try to appraise the health of a population. Much ill-health is not notifiable and is dealt with by family doctors without ever coming to official notice.

The Medical Officer of Health of a district tends thus to be separated, if not actually divorced, from the very people whose health is his concern. Yet, while it by no means replaces the general practitioner's opportunity to get to know his patients and families, it is valuable to have personal contacts through the clinical duties of an assistant county medical officer. He sees considerable numbers of babies and their mothers, in and out of health, examines children in schools and clinics, children mentally or physically handicapped and, in one capacity or another, the elderly in their homes. He who is thus employed must indeed be unobservant if he does not in the course of time learn enough to make possible a useful assessment of the health of at least two important age groups of the population.

This is one of the advantages to be gained from having a Medical Officer of Health in a joint appointment involving Local Health Authority duties. As the first holder of this type of appointment in Whitehaven, I trust it will lead to a re-integration of some of the personal and environmental services on which the National Health Service Act exerted a disruptive influence.

First impressions are often unenduring, especially when based on only two months' experience of office. At the risk of having to revise them, I would like to mention my own feeling that housing, air pollution, and tuberculosis are outstanding problems in the district.

For a borough the size of Whitehaven to have built in the post-war period enough houses to accommodate something like a third of its population is a remarkable achievement; it is no less astounding that so much remains to be done. Slum clearance remains a formidable problem and the work devolving on the Health Department makes heavy inroads on the time of the depleted staff. Whitehaven is at one with many authorities in working without a full establishment, but I question whether others have needs more urgent. The unpalatable fact is that other essential work—routine, not emergency—must suffer.

To me, fresh from an industrial area, the paucity of industrial chimneys is a delight. One of the few, however, is the stack of a sulphuric acid plant whose vast quantities of fume have left large numbers of Whitehaven people literally gasping. This blight, as you well know, has been the subject of much concern to the Council and its Health Department, the Alkali Inspectorate and the Company concerned. It shows signs of yielding to their combined efforts and it is to be hoped that no endeavour will be spared till the fume is finally reduced to a tolerable level.

Tuberculosis is undoubtedly giving way to the many forces brought to bear against it, and once again there is a new low record of mortality. Reasons why this does not mean tuberculosis in Whitehaven is now of minor importance are given in the report.

It is always pleasant to be made welcome, and a full list of those members and colleagues who have given me kindly assistance would be wearisomely long. Nevertheless, I must record my indebtedness to the County Medical Officer, Dr. W. H. P. Minto, whose invaluable counsel whenever sought has been generously given, and to the departmental staff whose helpfulness has been equalled only by their competence.

I am, Mr. Mayor and Gentlemen,
Your obedient Servant,
J. N. DOBSON,
Medical Officer of Health.

Section A.

STATISTICAL SUMMARY.

1—General Statistics:

Area of Borough in acres	4,315
Registrar-General's estimate of resident population (mid-year, 1956)	25,730
Persons per acre	5.96
Number of inhabited houses (end of 1956) according to Rate Books	7,400
Rateable Value	£227,723
Product of a Penny Rate	£820

VITAL STATISTICS

Births:

(a) Live Births	Males	Females	Total
Legitimate	269	245	514
Illegitimate	9	11	20
Total ...	278	256	534

Crude Birth Rate per 1,000 of population ...	20.8
Adjusted Birth Rate	19.9

(b) Still births	Males	Females	Total
Legitimate	12	8	20
Illegitimate	1	1	2
Total ...	13	9	22

Still Birth Rate (per 1,000 total births) ...	39.6

Deaths:

	Males	Females	Total
Deaths (all ages) ...	171	143	314

Crude Death Rate per 1,000 of population ...	12.2
Adjusted Death Rate per 1,000 of population	14.0
Deaths from Pregnancy, Childbirth and Abortion	One

Death Rate of Infants Under I Year of Age:

All Infants per 1,000 live births	37.5
Legitimate Infants per 1,000 legitimate live births	37.5
Illegitimate Infants per 1,000 illegitimate live births	Nil

The following table is given for comparison of certain vital statistics.

TABLE 1.

	Birth Rate	Death Rate	Infant Mortality Rate
Whitehaven Borough	20.8	12.2	37.5
Cumberland (Administrative County) ...	16.9	12.2	30.4
England and Wales	15.6	11.7	23.8

Comparisons here should be made bearing in mind that these are crude rates. Nevertheless, it is plain that the birth rate is substantially above the national average. The natural increase in Whitehaven—births 220 in excess of the deaths—represents a percentage increase in population of .85%. The natural increase for England and Wales in 1956 was .39%. This contrast is not new, as can be seen from the table given hereunder. Somewhat similar differences, indeed, extend back to the 19th century.

TABLE 2.

		Birth Rate per 1,000 of population:	
Year	Number of Births	Whitehaven	England & Wales
1952	... 481	19.5	15.3
1953	... 528	21.1	15.5
1954	... 513	20.3	15.2
1955	... 511	20.2	15.0
1956	... 534	19.9	15.6

Table 3 shows death rates over the past five years.

TABLE 3.

		Death Rate per 1,000 of population:	
Year	Number of Deaths	Whitehaven	England & Wales
1952	... 275	11.2	11.3
1953	.. 303	13.7	11.4
1954	... 249	11.4	11.3
1955	... 307	13.9	11.7
1956	... 314	14.0	11.7

From 1953 onwards the Borough's death rate was considered to be inflated by the inclusion of deaths in Part III accommodation of persons domiciled elsewhere. For 1956, however, the Registrar-General's comparability factors have been amended to take into account deaths occurring in residential institutions. The 1956 adjusted rate of 14.0 can accordingly be compared quite fairly with that for England and Wales.

Surprisingly, but thankful to relate, there were no deaths from motor vehicle accidents. Nor were there any deaths by suicide. Of the 14 accidental deaths, no less than 7 were due to simple falls, 6 of them in persons aged 75 years or more.

One maternal death occurred in 1956. The last death from this cause took place in 1953.

Maternal mortality in England and Wales has fallen steadily since 1943, and was .56 per 1,000 total live and still-births in 1956. No comparative table is given for the Borough, since rates for relatively small populations are meaningless.

Infant mortality rates are given in Table 4, and causes of death in Table 5.

TABLE 4.

Year	Number of Infant Deaths	Death rate per 1,000 live births: Whitehaven	England & Wales
1952 ...	17	35	28
1953 ...	16	30	27
1954 ...	10	20	26
1955 ...	15	29	25
1956 ...	20	37	24

TABLE 5.

Deaths of Infants Under 1 Year of Age.

Cause of Death	Age in Weeks				Age in Months				Totals
	0-	1-	2-	3-	1-	3-	6-	9-	
Prematurity	4	—	—	—	—	—	—	—	4
Congenital defects	—	1	—	1	—	—	—	—	2
Bronchopneumonia	1	—	—	—	4	1	1	—	7
Intracranial haemorrhage	1	—	—	—	—	—	—	—	1
Haemorrhagic disease of the newborn	1	—	—	—	—	—	—	—	1
Inhalation asphyxia	1	—	—	—	—	—	—	—	1
Infarction of kidney	—	1	—	—	—	—	—	—	1
Meningococcal meningitis	—	—	—	—	1	—	—	—	1
Pneumococcal meningitis	—	—	—	—	—	—	—	1	1
Atalectasis	1	—	—	—	—	—	—	—	1
Total deaths	Under 1 month 12				Over 1 month 8				20

Infant mortality was rather high and it is disturbing that some third of the deaths should be due to broncho-pneumonia. It is a condition eminently capable of treatment, and free medical attention and antibiotics have not brought the hoped-for reduction in mortality in recent years. While a few of these deaths are due to unidentified virus infections, others are believed to be due to delay in diagnosis. Often it seems the parent does not realise how ill the infant is, and calls the doctor too late.

The case of inhalation asphyxia recorded was an unusual mishap, the baby having inhaled blood immediately following an unattended birth at home.

Cancer Mortality.

There were 49 deaths from cancer, the primary sites of the disease being shown in Table 6, while in Table 7 are given death rates for the Borough and England and Wales.

TABLE 6.

Location of Disease	Male	Female	Total
Oesophagus	1	—	1
Stomach	4	2	6
Colon	6	3	9
Caecum	1	—	1
Rectum	5	—	5
Pancreas	2	—	2
Lung and Bronchus ...	7	3	10
Breast	1	3	4
Uterus	—	4	4
Ovary	—	3	3
Bladder	1	—	1
Eye	1	—	1
Other sites	—	2	2
	29	20	49

TABLE 7

		Annual Death Rate per 1,000 of population:	
Year	Number of Deaths	Whitehaven	England & Wales
1952	39	1.58	1.99
1953	44	1.76	1.99
1954	34	1.35	2.04
1955	49	1.94	2.06
1956	49	1.90	2.07

It will be seen from Table 6 that cancer of the lung and bronchus accounted for one-fifth of all cancer deaths.

TABLE 8

Causes of Death during the Year 1956
Registrar-General's Classification

	Males	Females
Tuberculosis of Respiratory System ...	1	1
Other Tuberculosis Diseases	—	—
Syphilitic Disease	—	—
Diphtheria	—	—
Whooping Cough	—	—
Meningococcal infections	1	1
Acute Poliomyelitis	—	—
Measles	—	—
Other Infective and Parasitic Diseases ...	—	—
Malignant Neoplasm, Stomach	5	2
Malignant Neoplasm, Lung and Bronchus	7	3
Malignant Neoplasm, Breast	1	3
Malignant Neoplasm, Uterus	—	4
Other Malignant & Lymphatic Neoplasms	16	8
Leukaemia, Aleukaemia	—	—
Diabetes	1	2
Vascular Lesions of Nervous System ...	23	31
Coronary Disease, Angina	31	12
Hypertension with Heart Disease ...	3	2
Other Heart Disease	17	22
Other Circulatory Disease	5	6
Influenza	1	1
Pneumonia	9	3
Bronchitis	6	5
Other Diseases of Respiratory System ...	3	1
Ulcer of Stomach and Duodenum ...	—	2
Gastritis, Enteritis and Diarrhoea ...	—	—
Nephritis and Nephrosis	1	—
Hyperplasia of Prostate	—	—
Pregnancy, Childbirth, Abortion ...	—	1
Congenital Malformations	1	1
Other Defined and Ill-defined Diseases ...	29	28
Motor Vehicle Accidents	—	—
All other Accidents	10	4
Suicide	—	—
Homicide and Operations of War ...	—	—
Total (all Causes) ...	171	143
	314	

Section B

GENERAL PROVISION OF HEALTH SERVICES

(a) Staff.

Changes in staff are shown on page of this report.

(b) Laboratory Facilities.

Full use is made of the bacteriological facilities at Whitehaven Hospital under the direction of Dr. A. C. F. Ogilvie, and of the Public Health Laboratory Service at the Cumberland Infirmary directed by Dr. D. G. Davies. Analytical services are provided by Mr. C. J. H. Stock, of the County Analyst's Offices, Darlington.

(c) Local Health Authority Services.

Medical services provided under Part III of the National Health Service Act are the responsibility of the Cumberland County Council. Information about the provision of Home Nursing, Home Helps, Immunisation and other services is available at the office of the Senior Assistant County Medical Officer, 102, Scotch Street, Whitehaven.

Clinics are held as follows:—

	Location:		
Type of Clinic	Sandhills Lane	Mirehouse	Woodhouse
School Clinic	Wed. 10-11 a.m.	Wed. 2-3 p.m.	Wed. 9-10 a.m.
Child Welfare	Tues. 2-4 p.m.	Wed. 2-4 p.m.	Wed. 2-4 p.m.
Ante-Natal	Fri. 2-4 p.m.	Thurs. 2-4 p.m.	Mon. 2-4 p.m.
Dental	Daily 9-30 a.m.	—	—

Special clinics (Ophthalmic, Ear, Nose and Throat, Orthopaedic) are held at Sandhills Lane Clinic by appointment. Appointments are also made for Speech Therapy at Sandhills Lane and Mirehouse Clinics, Child Guidance at 10, Scotch Street, Whitehaven, and Orthoptic treatment at Park Lane Clinic, Workington.

The Occupation Centre, Flatt Walks, has 40 places for mentally backward children.

(d) Hospital Services

Facilities provided by the Regional Hospital Board include Whitehaven Hospital, Flatt Walks: 121 beds. General hospital services. General practitioners have X-ray facilities directly available. Of special interest to the Local Health Authority is the Hearing Aid service, and chiropody provided on consultant recommendation — in the home where necessary.

The Hollins, Hensingham: 27 beds. Pre-convalescent and chronic sick.
Galemire, Cleator Moor: Infectious diseases hospital with 27 beds, 15 of them for tuberculosis.

There is no Chest Clinic in Whitehaven, the nearest centre being at St. Bridget's Lane, Egremont.

Part III hospital accommodation is available in Meadow View House, Whitehaven (31 beds) by joint user agreement with Cumberland County Council.

(e) Nursing Homes

There is one registered nursing home in the district, Glenholme, Foxhouses Road, Whitehaven (14 beds).

Section C

SANITARY CIRCUMSTANCES OF THE AREA.

These are detailed in the report of the Chief Public Health Inspector. Reference must be made, however, to the results of water samples which are given in the Appendix. From being uniformly excellent in the first half of the year, a degree of deterioration became evident from July onwards. Though these less satisfactory samples are classified as being of no hygienic significance, the situation is constantly under review, and it is expected that the cause will shortly be eliminated.

Section D

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES

Notifications, other than those of tuberculosis, are shown in Table 9.

TABLE 9

Disease	No. of cases notified	Admitted to Hospital	Died
Scarlet Fever	3	—	—
Whooping Cough	90	—	—
Measles	638	—	—
Acute Poliomyelitis, Paralytic	18	17	—
Acute Poliomyelitis, Non-Paralytic	4	4	—
Meningococcal Infection	1	1	1
Puerperal Pyrexia	4	1	—
Acute Pneumonia	4	1	—
Paratyphoid Fever	33	—	—
Erysipelas	1	—	—

Three of the cases of puerperal pyrexia were notified from Whitehaven Hospital.

The case of meningococcal infection was of cerebro-spinal meningitis in an infant one month old. He was admitted to Whitehaven Hospital and died there.

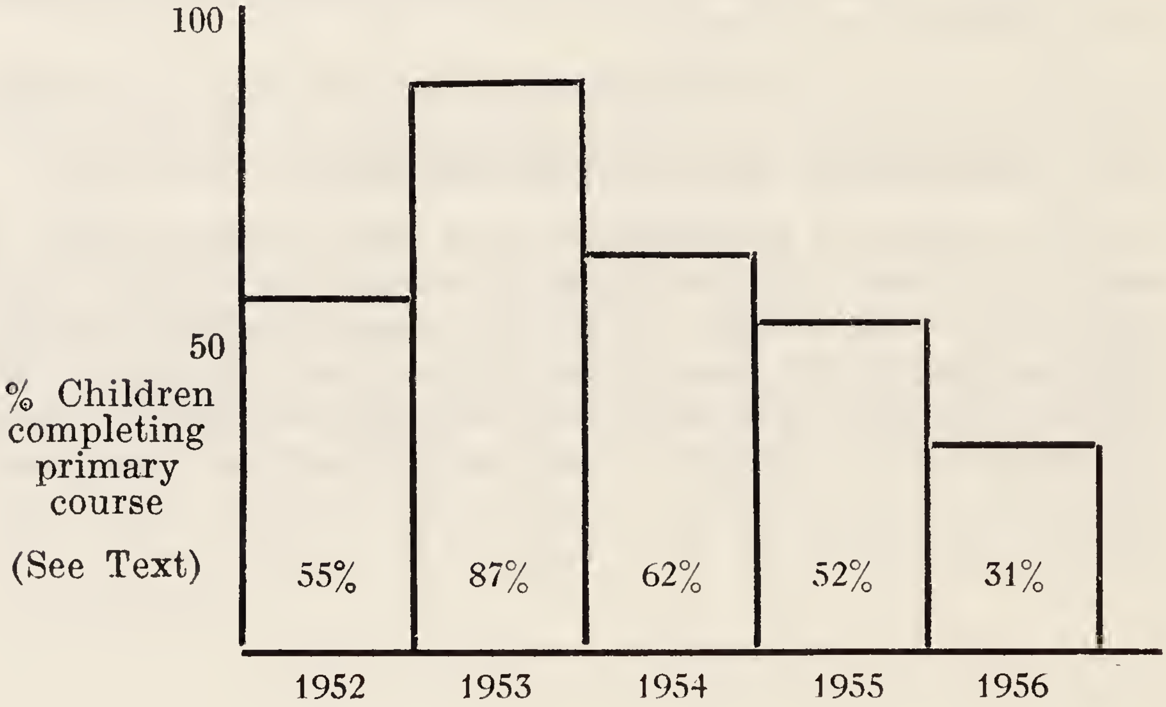
Two cases of paratyphoid fever were notified from the same household, the first being in a two year old girl. Paratyphoid B. was isolated from this case, but bacteriological examination in the case of her seven year old sister, who was also notified, was negative. Investigation failed to trace the source of the infection, and no further cases occurred.

Diphtheria.

The last case of diphtheria occurred in Whitehaven in 1946. While the disease is no longer a scourge it should be noted that 63 cases with 8 deaths occurred in England and Wales in 1956. Diphtheria is not eliminated, and the fact that most cases now occur during school life is no excuse for the tendency to give protection by immunisation too late in infancy to procure the full benefit.

It is usual to tabulate figures showing the immunisation state of the child population. In fact, since the Registrar-General ceased giving the child population of boroughs it is difficult to portray this with any accuracy. An expedient has been adopted of showing in histogram form the number of children under five who completed a primary course of immunisation in each year, as a percentage of the births in the previous year.

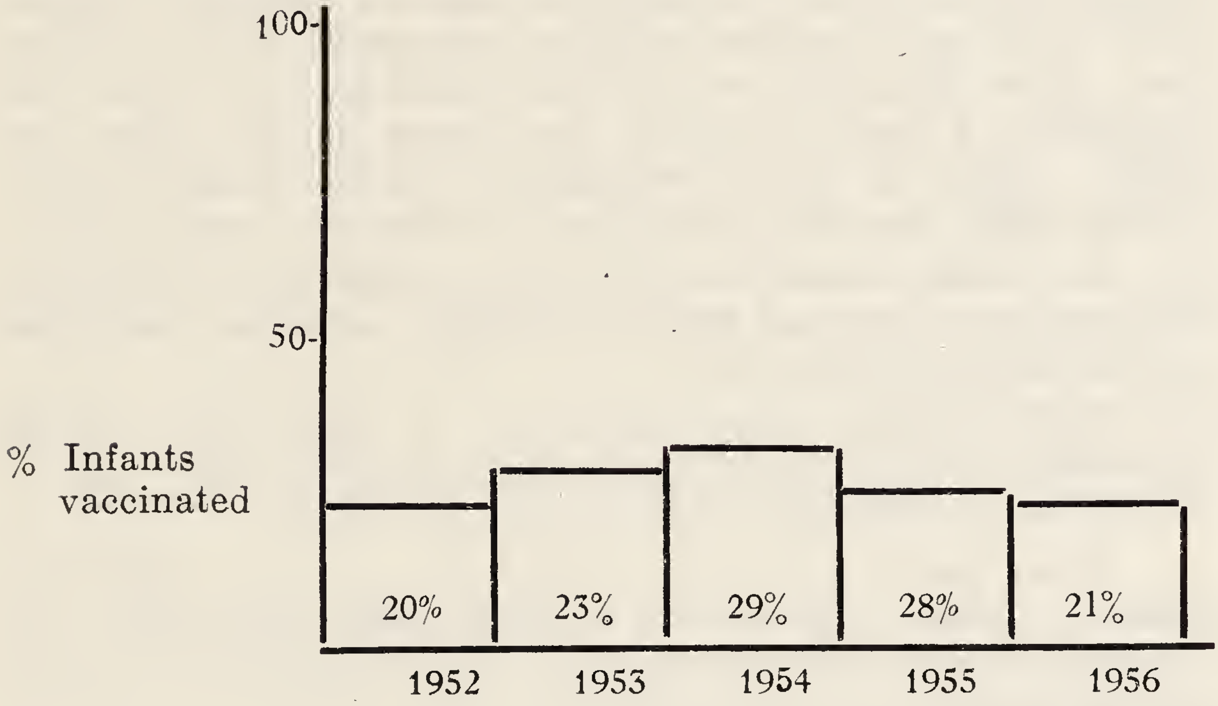
In the main, this shows the percentage of any year's births who are receiving immunisation for, while children up to five are included, the vast majority of those immunised have completed their courses by their second year. While not statistically precise, it is believed to represent the prevailing trend.



The 1956 figures were adversely affected by the suspension of immunisation during the poliomyelitis outbreak. But that does not account for the general decline from the high level of immunisation achieved in 1953. It would be sad if apathy were to result in the general level of protection falling to a point where the return of diphtheria became at all likely.

Smallpox Vaccination.

The numbers of children vaccinated in the past five years are shown in the following histogram. This gives the number of children under 1 year of age who were vaccinated as a percentage of the same year's births. Smallpox vaccination is most commonly performed at 3 months and while, as in the case of diphtheria immunisations, the representation cannot be wholly accurate the aim is to give an indication of the acceptance rate.



Vaccinations tend to fall short of the national average, though not seriously so. A very useful increase would almost certainly result if this simple procedure were made available at the Health Authority Clinics.

Poliomyelitis.

The 1956 epidemic of poliomyelitis caused 3,205 cases in England and Wales, with 114 deaths, Whitehaven contributing 22 confirmed cases to the total. The case rate in Whitehaven at one time reached 87 per 100,000 and this rate remained the highest in the country till September.

Eighteen of the cases were paralytic; there were no deaths. The first case developed symptoms on 26th April. This was a boy of 21 months whose sister attended a school which was to prove a principal focus of infection. Thereafter cases were reported with fair regularity every three or four days till, by a month later to the day, there had developed 8 cases. Six of these were on the Mirehouse estate, three of them attending the Valley School, Mirehouse, while the other three had sisters at the same school.

A striking feature was that, up to this time, the disease lived well up to its old name of infantile paralysis, the eldest patient being 8½ years old.

Three further cases developed on 27th May, all in Mirehouse again, two of them being adult males. One of these had a child attending the Valley School.

From this time on the dissemination outside the estate became evident. There were 11 such cases sporadically distributed so that the only populous area completely to escape was Bransty.

From 10th June notifications thinned, there being but five till the onset of the last case on 3rd July. These last five cases were all 15 years old or more, and included a local medical practitioner.

Investigation.

All families involved were visited by a public health inspector on receipt of notification. Other than the school and estate link already mentioned the only other connection so coming to light was that three children who developed the disease on 1st or 2nd June all attended Crosthwaite School.

Concurrently, Dr. J. L. Hunter, Senior Assistant County Medical Officer, made an independent investigation covering West Cumberland as a whole. I have been fortunate enough to read his account in its entirety, a record of a meticulous survey which probed every possible link between cases, proven and not proven, by direct and indirect contact, whether by droplet infection, water, milk or sewage contamination, at work, school, in places of refreshment, public transport or in the home. But this detailed enquiry failed to establish the predominant mode of transmission of infection; every epidemiologist works under the handicap of knowing that possibly scores of undetected cases and carriers occur for every case notified. Even the detection of the virus in the faeces is of limited value; it proves neither that the person concerned is a patient nor a carrier.

A number of faecal specimens did show, though, that the outbreak was due to Type I virus (Brunhilde). Virus was not, however, isolated from the town's sole water supply, Ennerdale Water. At the request of Dr. J. Steven Faulds, the Chief Public Health Inspector submitted swabs which had been soaked in the lake for varying periods, chiefly at the points of entry of sewage effluents. These yielded no growth of poliovirus on tissue culture.

In brief, the question as to whether infection is spread by the mouth (droplet infection) or by the bowel remains unresolved. It may well be by both. Retrospectively suspicion has centred on a stream in Mirehouse in the vicinity of which occurred illnesses almost certainly poliomyelitis which were not notified as such. Even had the stream been found to harbour infection, one is still faced with the problem as to whether the disease was derived from the stream or spread by personal contact in a communal playground.

Control.

The Health Department staff advised families involved on personal hygiene and disinfection, food hygiene and its protection from flies and vermin. The customary periods of exclusion from school of cases and contacts were observed. Initially, adult contacts were advised not to go to work; there was no evidence that this was a preventive measure of value and it was later discarded except in the case of food handlers.

The cinemas and swimming baths remained open, but public gatherings in general were discouraged. Immunisations were halted and operations on the nose and throat suspended. Immunisation against poliomyelitis did not enter into the picture. Vaccine was not available till after the outbreak started and its administration then would have been inappropriate.

Comment.

However sad are the individual legacies of poliomyelitis, it must be said that Whitehaven, with no deaths, escaped relatively unscathed. Poliomyelitis plays powerfully upon the emotions, and it is easily overlooked that in any one year heart, lung and kidney disorders of childhood are likely to cripple more children than are handicapped by infantile paralysis. That of course is no excuse for complacency, and one must wonder what might have been done further to limit the spread of the disease.

The measure most appealing to parents perhaps is school closure. Three weeks after the first case occurred it was abundantly clear that the Valley School was heavily involved. Yet the last case connected with the school occurred well within the incubation period following the earliest date on which school closure could have been contemplated. In other words, the disease proved to be self-limiting, and Ministry of Education policy in not closing schools under the circumstances prevailing was justified.

Nothing is easier than to be wise after the event. That being acknowledged, it may be said that the attitude to the Press was over-secretive with the unfortunate result that some sections of the National Press published dramatised accounts which increased local apprehension to an unjustifiable extent.

The many facets of outbreaks of poliomyelitis have been discussed in a profusion of papers, texts, theses and journals. One day it is to be hoped these will assume largely historical importance as poliomyelitis vaccination gains ground and ultimately conquers the disease. Meantime one aspect is persistently neglected, common indeed to a number of diseases. Medical practitioners are heavily exposed to risk during an epidemic; if struck down there is no compensation.

Mention of this may surprise those who endorse the tradition that fulfilling a vocation is reward enough for this occupational hazard. But, if killed or crippled, public esteem is short-lived consolation for the doctor's family. Poliomyelitis should surely be scheduled as a prescribed industrial disease; the death rate from it among doctors is eight times that for the population as a whole.

Another implication arises here; doctors themselves are liable to be foci of infection if incubating the disease. In suspected cases of poliomyelitis they alone are frequent visitors to the home, also visiting many other patients daily. A much-neglected precaution is that the doctor should wear a mask when examining such cases. While one is reluctant to further alarm an apprehensive child, public and personal interest outweigh this slight disadvantage.

Tuberculosis.

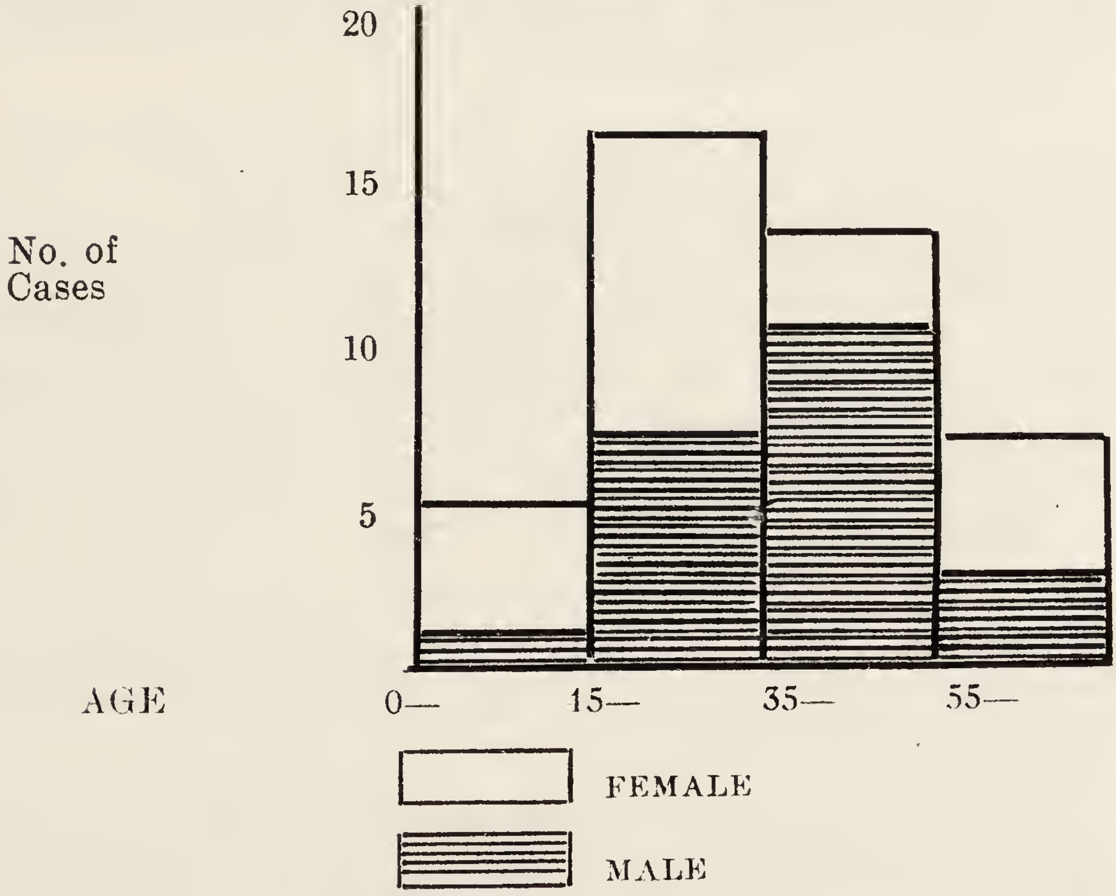
Notifications in 1956 were received as under:—

TABLE 10.

	Respiratory	Non-Respiratory	Total
Male	21	1	22
Female	20	1	21
Total	41	2	43

The age and sex constitution of the cases is typified in the following diagram, showing the customary predilection of the disease for young women and the man who should be in his working prime.

Notifications of Respiratory Tuberculosis in Main Age Divisions



A favourable comparison between the tuberculosis death rate for Whitehaven and that for England and Wales was remarked in 1954, the first time in twenty years. In 1955 and 1956 Whitehaven's death rate again was lower:—

TABLE 11.

Deaths from Tuberculosis (Rates per 1,000).

	Respiratory Tuberculosis				All forms of Tuberculosis		
	Whitehaven		England & Wales		Whitehaven		England & Wales
Year	No. of Deaths	Death Rate	Death Rate		No. of Deaths	Death Rate	Death Rate
1952	8	0.32	0.21	...	8	0.32	0.24
1953	6	0.24	0.18	...	6	0.24	0.20
1954	4	0.16	0.16	...	4	0.16	0.18
1955	2	.08	0.13	...	2	.08	0.15
1956	2	.078	0.11	...	2	.078	0.12

Deaths have fallen to such an extent that the small figures involved make such comparisons rather treacherous. Even so, it is certain that tuberculosis mortality in the district has fallen dramatically in the last quarter of a century, even more so than in the country as a whole. Welcome as this is, mortality reduction is due in the main to the achievements of curative medicine. A slightly different picture emerges on comparing the incidence of new cases.

TABLE 12.

	Whitehaven (Pop'n 25,730)			England & Wales (Pop'n 44,667,000)	
	New Cases	Case Rate per 1,000		New Cases	Case Rate per 1,000
Respiratory	41	1.59	...	31,642	0.71
Non-Respiratory ...	2	.078	...	4,173	.093

In brief, there are twice as many cases of tuberculosis occurring in Whitehaven in proportion to its population as in the rest of the country.

It is true that the intensive search for further cases among the contacts of known cases directed by the Consultant Chest Physician, Dr. R. Hambridge, backed by the efforts of the Mass Miniature Radiography Unit, results in cases being notified which otherwise would remain hidden for at least a time. But this by no means accounts for the whole difference, and the figures lend emphasis to the fact that much has yet to be done to overcome this major health problem in Whitehaven.

Mass X-Ray

Economic justification for the use of Mass X-Ray varies from one part of the country to another. As tuberculosis declines, proportionately more people must be X-Rayed to find every new active case.

In West Cumberland with a case-finding rate of some 3 per 1,000 persons X-Rayed there are no signs of the Unit outliving its usefulness. In Whitehaven indeed it has been the means of discovering 62 new cases in the past five years despite the fact that relatively few people make use of it. Here is the record for this period.

TABLE

Year	1952	1953	1954	1955	1956	Total
Number X-Rayed	3,513	3,352	3,396	3,961	3,974	18,196
New cases discovered—						
Active	11	13	10	18	10	62
Inactive ...	93	84	57	28	70	332

This means a case-finding rate of 3.4 per 1,000 persons examined. The 1956 total of examinations was the highest ever, yet it amounts to only one-fifth of the adult population. Two instances alone confirm the value of Mass X-Ray. In the course of three visits to one large factory in the last five years, 1,318 persons were X-Rayed and 7 new active cases discovered—a high rate indeed. Between 1952 and 1956, 3,859 schoolchildren were examined and 7 new active cases reported by the Mass Radiography Unit.

It is necessary to examine these figures a little further. Many children living in Ennerdale Rural District obtain their secondary education in Whitehaven, and it is thus possible to ascribe to Whitehaven cases which are really pointers to source cases in Ennerdale. It was found in fact that eight, not seven, notified cases had been discovered by mass radiography of which two were found to live in Ennerdale. (This does not include cases found by the Unit as a result of attending for contact examination.)

There were thus six active Whitehaven cases among the 3,859 children examined, of whom at least some hundreds were then domiciled in Ennerdale; the exact number of the latter is not known, but it is fair to assume that the number of cases brought to light is in the region of 2 per 1,000 Whitehaven children examined.

This figure is to be compared with the national average of 1.5 per 1,000, which is said to be too small to make mass radiography of children worth while. In conjunction, however, with the high proportion of tuberculin positive reactors at school-leaving age it raises serious doubts as to whether the age of 13 is the optimum for B.C.G. vaccination. It seems that protection against tuberculosis should be given earlier in Whitehaven if its full value is to be realised.

B.C.G. Vaccination.

This type of immunisation is less familiar to many than diphtheria immunisation, and has not received previous mention in the Medical Officer's report. Briefly, B.C.G. vaccination aims at giving protection against tuberculosis by means of an injection into the skin of B.C.G. vaccine. In this country B.C.G. is offered to persons at special risk—nurses, medical students and contacts of cases of tuberculosis—and schoolchildren in their thirteenth year. When consent of the parents has been given, the children are first given a skin ("Mantoux") test to see if they already have some resistance to the disease. Those who have no resistance then receive a single injection of vaccine, to be followed later by a skin test to see if the immunisation has been successful.

B.C.G. is in world-wide use, is extremely safe, and its value in the groups mentioned is unquestioned. It was first made available to schoolchildren in Cumberland in 1955.

Table 14 summarises the work done so far in Whitehaven.

TABLE 14.

Year	No. of children eligible for test	No. & %age of parents consenting	No. tested	No. & %age Mantoux positive	No. Mantoux negative	No. given B.C.G.
1955 ...	454	371 (82%)	362	124 (34%)	238	231
1956 ...	434	324 (75%)	315	149 (47%)	166	160

The consent rate is not as great as could be wished, but will no doubt improve as the passage of time establishes B.C.G. vaccination as a safe and valuable procedure in everyone's mind. The higher percentage of Mantoux positive cases in 1956, compared with 1955, is not a real difference, but due to an alteration in the potency of the testing agent approved by the Ministry of Health.

The percentage Mantoux positive, which gives an indirect measure of the amount of tuberculosis infection in the community, is decidedly high and confirms the fact already well known that Whitehaven in common with West Cumberland has an unduly high incidence of tuberculosis.

REPORT

# of the

CHIEF PUBLIC HEALTH

INSPECTOR

Public Health Department,
53, Duke Street,
WHITEHAVEN.

To the Medical Officer of Health,
Whitehaven.

Sir,

I wish to submit my sixth Annual Report for the year ended 31st December, 1956.

Difficulties were encountered during the year occasioned by the resignation of one inspector in August and another inspector at the end of the year. It was necessary to reduce the amount of time spent on certain branches of the work and to concentrate on the essential duties of Food Inspection and Housing. Attempts to fill vacant posts failed and by 31st December I was without any assistance whatever. It is ironical that this situation coincides with many additional duties being introduced into the work of the Department.

Section A.

HOUSING.

Progress in the reduction of the Town's Slum problem continues to receive high priority and every effort has been made to keep to the schedule submitted under the Housing Repair and Rents Act, 1954, S.1.

Building. One hundred and ninety-six permanent dwelling houses were completed by the Corporation and fifty-two were under construction at the end of the year.

Displacements. Fifty-six families were displaced from unfit dwellings, after Housing Act action and all these were re-housed by the Local Authority.

Procedure. Forty-nine dwellinghouses were dealt with under Housing Act 1936 (s.11 and 12), resulting in 45 Demolition Orders being made and 4 Undertakings being accepted.

Seventeen Informal Undertakings were accepted from owners of unfit houses. Thus a total of 66 dwellings was dealt with. This figure was purposely kept lower than in previous years in order that re-housing of occupiers could be carried out without too great a period of time elapsing between the inspection of the house and the re-housing of the tenant. In short, closing of unfit houses was retarded to keep pace with the availability of alternative accommodation.

Clearance Area procedure under Housing Act 1936 S. 25 was begun in respect of 6 Clearance Areas involving 80 properties of which 61 were occupied houses. These Areas were the first to be dealt with since 1939.

Repairs. No action was taken during the year to enforce repairs under S.9 of the Housing Act, attention being given to essential repairs to occupied dwellings, to prolong their lives until closing could be effected. One dwelling was rendered fit after an offer of works had been accepted and carried out.

Re-development. Every effort was made to close and secure vacation of the unfit dwellings in the George Street and Harbour Areas. Some progress was made by the demolition, by the Local Authority, of vacated houses and it is encouraging to note that the erection of the first block of flats was commenced in the George Street Area during the year.

Housing Act, 1936 — Overcrowding

No complete figure can be given without a survey. Ten cases of overcrowding under the 1936 standard were discovered during house visits throughout the year.

Record of Inspections

Accumulations	30
Atmospheric Pollution	23
Bakehouses	38
Caravans	41
Drainage Work (new)	—
Drains Tested	1
Drains Repaired	23
Disinfestation	33
Factories	97
Fish Friers	18
Food Shops	143
Food Preparers	47
Housing Acts	310
Ice Cream Premises	39
Infectious Disease Inquiries	155
Infectious Disease Fumigations	24
Interviews with Owners/Occupiers	693
Licensed Premises	24
Marine Stores	24
Milk Shops and Dairies	59
Outworkers	3
Overcrowding	10
Pet Animals Act	10
Public Health Acts	161
Rag Flock Act	3
Rodent Control	234
Repairs—Revisits	57
Restaurants	16
Slaughterhouses	818
Swimming Baths	7
Verminous Premises	26
Vessels in Harbour	147
Water Samples	23
Miscellaneous	332
Total	3,669

Repairs and Improvements

Accumulations Removed	6
Chimney Stack/Flues Repaired	7
Drains Cleared	25
Drains Repaired or Renewed	20
Dustbins Provided	—
Eavesgutters Repaired	23
External Walls Repaired	9
Floors Repaired	7
Flushing Cisterns Repaired	21
Gullies Repaired/Renewed	8
Houses Disinfested	4
Houses Fumigated	38
Rain Water Pipes Renewed	15
Roofs Repaired	22
Sinks Provided	7
W.C. Pans Fixed	8
Wall and Ceiling Plaster Renewed	22
Windows Repaired/Renewed	12
	254

Section B.

FOOD

I. Food premises in the district are 234.

II(a). Premises Registered under Food and Drugs Act, 1955. S.16.

Ice Cream Premises	71
Potted, pickled and preserved foods (meat products, fish cakes, etc.)	18
Fried Fish Shops	14

II(b). Dairies and Milk Supply.

There were at the end of the year eighteen distributors of milk in the Borough and eight premises were in use as dairies. One person sold milk from a shop.

With the exception of a small amount of ungraded milk sold loose from churns by two distributors, the entire milk sold in the Borough is Tuberculin Tested or Pasteurised. No sterilised milk is sold.

Regular attention was paid to handling and bottling methods and practices. Distributors were progressive and co-operative and anxious to carry out their responsibilities.

A noticeable feature is the growing tendency of the distributor to buy milk ready bottled from a wholesaler and the system has much to commend it.

Sampling was carried out during the year to check the cleanliness of the supplies and the results were as follows:—

T.T.	10 Satisfactory	1 Unsatisfactory
Pasteurised ...	1 ,,	—
Ungraded ...	3 ,,	—

III. Inspections of all food premises were carried out during the year usually at the time of visits for some other purpose, e.g., sampling or condemnations, see (VIII) below. Three hundred and twenty-two visits were paid to food premises during the year (excluding visits to slaughterhouses).

IV. Educational Activity.

No organised system of lectures or the introduction of clean food guilds was carried out, but two of the most important food trades (grocers and meat) as well as an interested Women's Guild were addressed during the year on food hygiene practice. The conviction is still held by me that the greatest benefit can be derived by personally visiting the establishments and discussing problems on the spot with both management and staff.

V. Disposal of Condemned Foodstuffs.

This falls into two well-defined groups of (a) Meat and slaughterhouse products; (b) All other foodstuffs. The former is collected thrice weekly by a reputable firm from the two slaughterhouses in the town and is processed for industrial uses. All other foodstuffs from shops and stores are transported to the Local Authority refuse tip and deeply buried, under supervision. The system is satisfactory and no leakage has yet been known.

VI. Special examination of large stocks of food has not been necessary.

VII. Ice-Cream (Heat Treatment) Regulations, 1947-52.

There are in the Borough 71 premises registered for the sale of ice cream. Of this number 8 are premises where the product is manufactured, the remaining being food shops registered for the sale and storage after application. Heat treatment is carried out by 5 of the manufacturers and cold mix methods by 3.

Close supervision is maintained on manufacturing methods and sampling is carried out from time to time. Sampling during the year showed the following results:—

17 samples were of Grade I.
4 ,, ,, ,, ,, II.
2 ,, ,, ,, ,, III.

The two unsatisfactory samples (Grade III) reached Grade I on repeating the sample.

New registrations of premises have been few during the year and the standard of hygiene of persons and premises has been satisfactorily maintained.

VIII. Food Hygiene Regulations 1955.

While much had been done in the field of food hygiene in previous years, the introduction of these Regulations was welcomed. No systematic inspection of all premises has been possible owing to staff difficulties, but whenever possible the Regulations have been explained to occupiers and food-handlers. Advantage has been taken of the frequent visits to food premises made for other purposes to effect improvements.

Slaughterhouses and Meat Inspection.

The control and administration of the Pottery Road Slaughterhouse by the Corporation was unfortunately terminated and reverted to private control at the beginning of the year. Private slaughtering was continued by groups of butchers and by a wholesale company which sells "off the hook" and this slaughterhouse, though licensed as a private slaughterhouse, continues to practise communal slaughtering on a public slaughterhouse system. Hours of slaughtering can no longer be controlled and the habit of Sunday slaughtering, together with long hours during the week, necessitates much overtime on meat inspection services. In spite of this, all animals and offals have been inspected, but of necessity other branches of the work have suffered.

An additional private slaughterhouse was licensed and in use during the year after extensive improvements were carried out by the owner. These premises are used only by one butcher and the standards maintained are excellent.

The following table shows the number of animals slaughtered and the condemnations during the year.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	2,771	3,005	621	18,803	4,880
Number inspected	2,771	3,005	621	18,803	4,880
All Diseases Except Tuberculosis					
Whole carcases condemned	3	11	17	41	3
Carcases of which some part or organ was condemned	1,116		2	294	89
Percentage of the number inspected affected with disease other than Tuberculosis	19.54		3.05	1.78	1.88
Tuberculosis only					
Whole carcases condemned	2	8	—	—	4
Carcases of which some part or organ was condemned	616		1	—	57
Percentage of the number inspected affected with Tuberculosis	10.83		0.16	—	1.25

Total Weight of Meat Condemned, 30 tons, 9 cwts., 51 lbs.

Other Articles of Food Surrendered.

	lbs.
Tinned Meats	1,471
Tinned Fruit	490
Tinned Vegetables	571
Tinned Milk	97
Tinned Fish	24
Tinned Soups	74
Bacon	700
Fish	309
Cheese	95
Biscuits	12
Fish Cakes	83
Jam	3
Liquid Eggs	173
Flour	42
Sausages	62
Sweets	28
Fowls	124
Frozen Beef	498
Frozen Liver	28
Dried Fruit	47
Cake	5
Pies	6
Total	4,942

WATER

The entire supply for the district is taken from Ennerdale Lake, the daily amount of treated water being approximately 3,586,000 gallons. Sampling is carried out regularly for bacterial and chemical analysis by this department. (See Appendix.)

Section C.

MISCELLANEOUS.

I. Factory Act, 1938.

Inspection of factories were made during the year and the following tables are inserted for information.

FACTORIES AND WORKSHOPS.

I. Inspection of Factories, Workshops and Workplaces.

Premises	No. on Register	Inspections	Number of Written Notices	Number of Prosecutions
(1) Factories without mechanical power	16	41	—	—
(2) Factories with mechanical power	94	77	4	—
(3) Other premises	3	2	—	—
Total	113	120	4	—

II. Defects found in Factories, Workshops and Workplaces.

Particulars	Number of cases in which Defects were found: Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector	Prosecutions
Want of Cleanliness ...	8	8	—	—	—
Overcrowding	—	—	—	—	—
Unreasonable temperature ...	—	—	—	—	—
Inadequate Ventilation	—	—	—	—	—
Ineffective drainage of floors	—	—	—	—	—
Sanitary Conveniences:					
(a) Insufficient ...	—	—	—	—	—
(b) Unsuitable or defective ...	3	3	—	3	—
(c) Not separate for sexes ...	—	—	—	—	—
Other offences	—	—	—	—	—
Total ...	11	11	—	3	—

II. Rag Flock Act.

There are two premises, one factory and one storehouse for the manufacture and storage of curled hair, licensed under this Act. Visits are made periodically and a high standard of hygiene is maintained.

III. Pet Animals Act.

Three shops hold annual licences for the sale of pets. These premises are visited from time to time and conditions are satisfactory.

IV. Offensive Trades.

Three premises are registered as Offensive Trades. One Rag and Bone dealer, one tripe and gut preparer, one fat melter. Conditions are satisfactory and no nuisance arose during the year.

V. Rodent Control.

Inspection of premises and complaints produced 124 cases of rats or mice infestation, necessitating 234 visits. Most cases involved were very minor infestations in dwelling-houses. Business premises were also affected and a small charge is made for this service. No major infestations were discovered.

VI. Smoke Abatement and Atmospheric Pollution.

Although the town fortunately does not suffer greatly from Industrial smoke, and no serious nuisance occurred during the year, visits were made to premises falling within the scope of the work and occupiers were contacted with a view to the future.

Most occupiers realise the need to eliminate any pollution and are on the whole co-operative, but many practical difficulties such as plant improvement and firing practices have yet to be overcome.

Domestic smoke has been diminishing in the town for some years due mainly to the closing of dwelling-houses and the greater use of electricity and gas for heating and cooking. Nevertheless the use of smokeless fuels especially in new buildings should be encouraged.

The nuisance from chemical fumes discharged from a comparatively new plant has given rise to a great deal of anxiety. Negotiations with the firm concerned and with the Acid Inspectorate have frequently taken place and it is gratifying to report that a steady improvement has been achieved on the plant involved. The firm has been very co-operative and has tackled this new problem with vigour, but the problem is complex and it may yet be some time before the effluent is satisfactory to all concerned.

VII. Collection and Disposal of Refuse.

This service is undertaken by the Surveyor's Department of the Corporation, all household and trade refuse being disposed of by tipping in a large disused quarry on the outskirts of the district.

VIII. Disinfection and Verminous Premises.

Thirty-eight rooms were disinfected after infectious disease during the year. The treatment of bed bug was once again on a very much reduced scale, only 3 cases being discovered and treated during the year. The reduction in the numbers of cases of this pest during recent years is remarkable.

Other insect pests were confined to blow-flies, ants and cockroaches. Advice and treatment were given where necessary and materials issued free of charge to householders.

I am,
Yours faithfully,
A. A. BELDON.
Chief Public Health Inspector.

APPENDIX

WATER ANALYSIS

Date	Before or after Chlorination	Number of Colonies on Nutrient Agar after 72 hours		Presumptive B. Coli Test at 37° C. after 72 hours	Clostridium Welchii Test at 44° C. in 40 ml. after 48 hours	Remarks
		at 37° C.	20/22° C.			
28/1/56	After	0 per ml.	3 in 2 ml.	Negative in 100 ml.	Negative	Of good and wholesome quality.
1/3/56	,,	10 per ml.	6 per ml.	,,	,,	Of good and wholesome quality.
26/3/56	,,	1 in 2 ml.	1 per ml.	,,	,,	Of good and wholesome quality.
5/5/56	,,	1 in 2 ml.	1 per ml.	,,	,,	Of good and wholesome quality.
15/5/56	,,	8 per ml.	13 per ml.	,,	,,	Of good and wholesome quality.
25/6/56	,,	3 in 2 ml.	0 per ml.	,,	,,	Of good and wholesome quality.
19/7/56	,,	24 per ml.	968 per ml.	Positive in 20 ml.	,,	The probable number of coliform organisms per 100 ml. of sample is of the order of 13—an excessive figure for a chlorinated supply.
26/7/56	,,	22 per ml.	55 per ml.	Positive in 30 ml.	,,	The probable number of coliform organisms is of the order of 8 per 100 ml. of sample, still too high a count in view of the fact that there is a trace of residual chlorine.
3/8/56	After	33 per ml.	60 per ml.	Positive in 60 ml. Negative in 50 ml.	1 large colony	Probable number of coliform organisms is of the order of 5 per 100 ml. which for a chlorinated supply is excessive.

Date	Before or after Chlorination	Number of Colonies on Nutrient Agar after 72 hours		Presumptive B. Coli Test at 37° C. after 72 hours	Clostridium Welchii Test at 44° C. in 40 ml. after 48 hours	Remarks
		at 37° C.	20/22° C.			
3/8/56	,,	54 per ml.	165 per ml.	Positive in 10 ml.	Negative	Probable number of coliform organisms is of the order of 250 per 100 ml., in spite of the fact that it is said to have been taken after chlorination.
3/9/56	,,	5 per ml.	4 per ml.	Positive in 100 ml. Negative in 90 ml.	Negative	Probable number of coliform organisms has decreased. The development of even 1 per 100 ml. of sample is not regarded as being entirely satisfactory in a chlorinated supply.
7/9/56	,,	16 per ml.	11 per ml.	Positive in 100 ml. Negative in 90 ml.	Negative	Probable number of coliform organisms is of the order of 1 per 100 ml. of sample and while this should not be in a chlorinated supply, I am of the opinion that no hygienic significance can be attached to the circumstances.
25/10/56	,,	5 in 2 ml.	5 in 2 ml.	Positive in 20 ml.	Negative	Probable number of coliform organisms is of the order of 13 per 100 ml. of sample.
22/11/56	,,	1 per ml.	0 per ml.	Negative in 100 ml.	1 small colony	Sample shows development of one small colony in the Clostridium Welchii test, but in view of the excellence of the other results this has no hygienic significance.
22/12/56	,,	5 in 2 ml.	5 per ml.	Negative in 100 ml.	Negative	Of good and wholesome quality.

County Analyst's Office,
Darlington.

I hereby certify that I have analysed the undermentioned sample of water marked: Sample of water from Ennerdale Lake (direct before chlorination), which I received from Mr. A. A. Beldon, Chief Public Health Inspector, Whitehaven, on the 28th day of December, 1956, and that I find as follows:—

		Parts per 100,000
Chlorine as Chlorides		0.9500
Nitrogen as Nitrates		0.0322
Ammonia		0.0027
Albuminoid Ammonia		0.0026
Oxygen Absorption		0.0380
Injurious Metals		None
Total Solid Matter dried @ 100°C. ...		6.0000
pH Value of Sample		6.0
Temporary Hardness	None Degrees	
Permanent Hardness	1.20 ,,	
Colour of Sample on Hazen Scale ...		3
Appearance of Sample in 2 foot tube		Not quite clear
Odour when heated to 50°C. ...		None

Microscopical Examination.

Considerable deposit from ½ gallon, consisting of earthy matter, vegetable debris, fungus growths and many micro-organisms.

Bacteriological Examination.

Number of Colonies on Nutrient Agar @ 37°C. after 72 hours	16 per ml.
Number of Colonies on Nutrient Agar @ 20-22°C. after 72 hours ...	22 per ml.
Presumptive B. Coli Test at 37°C. after 72 hours	Positive in 1.0 ml.
Clostridium Welchii Test @ 45°C. in 40 ml.	Negative

Observations.

From the results of the chemical analysis it is clear that the sample does not contain excessive proportions of nitrogenous constituents such as are normally associated with drainage of an undesirable character, and the counts on agar are within satisfactory limits, the clostridium welchii test affords no evidence of faecal contamination, but the probable number of coliform organisms is of the order of 25 per 100 ml. of sample. At the same time there is a considerable deposit which leaves no doubt that there is a degree of contamination by surface water, but as the sample was taken before chlorination no doubt these defects will be remedied when this method of purification is applied and, as an untreated supply, it is of satisfactory quality for all domestic purposes after suitable treatment.

Signed: CYRIL J. H. STOCK.